

FUEL INJECTION VALVE

5

ABSTRACT OF THE DISCLOSURE

There is provided a fuel injection valve in which  
nozzle holes are formed on a metering plate and fuel  
10 flowing on a face of the metering plate on the upstream  
side is injected outside of a face of the metering plate  
on the downstream side through the nozzle holes. The  
fuel injection valve includes a vortex flow generator  
means for changing a flow of fuel passing in each nozzle  
15 hole into a vortex flow, wherein the vortex flow  
generator means is provided on the upstream side of the  
metering plate. The vortex flow means is a vortex flow  
generator groove provided on an upper face of the  
metering plate and connected with a wall face of an  
20 entrance of the nozzle hole, and a main stream of fuel  
flowing in the groove is directed to a position shifted  
from the center of the nozzle hole. Alternatively, the  
vortex flow means is a protrusion formed on an upper face  
of the metering plate. A flow of fuel is changed into a  
25 vortex flow in the nozzle hole and injected from the  
nozzle hole. Therefore, fuel can be excellently atomized  
and diffused as a megaphone-shape without being formed  
into a liquid column spray.